CRA-WP
Postdoc | Job Search

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Who is in the audience?

• Postdocs?
• How did you find the job?
• Who interviewed for the position?
• Who gave a talk?
• Who had options other than the post doc?
  • Permanent jobs? Teaching? Research?
• Why was the postdoc your choice?
Topics Covered

• The Landscape - know what you want
• Where to apply?
• The application
• The interview: preparing, the big day(s)
• Post Interview: waiting, deciding, negotiating
• Parting Tips
The Landscape of Positions
The Landscape

What kind(s) of position are you looking for?


What type of environment do you want to you work in?

- Small or big department? Join established research group or start one?

Where to live? (and any significant other)


Confused? Apply & interview for various positions
A Second Post Doc Position

Consider if you had a one-year at your PhD institution or special opportunity

Example: National Laboratories named postdoc fellowships

- Sandia: Truman or Hruby fellowships: 3 years to work on research you propose, much better pay than regular postdoc, prestige within the lab, very likely to become full position if you want. Very competitive.
- Sandia von Neumann fellowship (for computing): half-time your own research and half-time with a current project
- Other major named fellowships (C = computing): Vigner, Weinberg, Russell, Householder (C) at Oak Ridge; Lawrence and Fernbach (C) at Lawrence Livermore; Alvarez (C) and Hopper (C) at Lawrence Berkeley Lab; Massey, Mayer, Wilkinson (C), Butler (C) at Argonne.
## University/College Positions

<table>
<thead>
<tr>
<th>Type</th>
<th>Degree Program</th>
<th>Emphasis</th>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Universities (R1)</td>
<td>BA, BS, MS, PhD</td>
<td>Research</td>
<td>Teaching and Service</td>
</tr>
<tr>
<td>Colleges/Universities</td>
<td>BA, BS, MS maybe PhD</td>
<td>Teaching</td>
<td>Research &amp; Service</td>
</tr>
<tr>
<td>Selective Liberal Arts Colleges</td>
<td>BA, BS</td>
<td>Teaching &amp; Scholarship</td>
<td>Service &amp; Research</td>
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Research University Expectations

Publications – journals, conferences (top peer-reviewed)
Funding to support research groups and summer salary
Graduate student training (and professional success)
Reputation and impact
• Leader in your profession.
• Higher in rank: more visibility and international reputation – invited talks, conference organization, journal/editorial boards, professional organization roles.
Maybe
• MS/Undergraduate research mentoring
• Patents, software artifacts, etc
Research Faculty

Rewards

• Easier to get a position if you can cover most of your salary
• Potential solution to 2-body opportunity
• Varies, but often same access as tenure-track to research resources (advising PhD students, lab space, etc.)

Challenges

• Funding sources that pay full salary are limited
• Usually, several projects needed
• Less stability (not tenure-track)
Teaching Focused Position

Rewards
• Impact students lives and careers
• Less multitasking, travel, stress
• University community and research opportunities
• Tenure track at Teaching Focused Institutions
• Many opportunities with booming enrollments

Challenges
• Tenure track vs non-tenure track everywhere else
• Non-tenure track: Less prestige, sometimes pay, and job security
Research University: Teaching

Teaching Load: typically 1:1 to 1:2

Mix of undergraduate and graduate courses from introductory undergraduate to core graduate course to research seminars

Teaching assistants for grading, office hours, etc.

Involve undergraduates in research
Teaching Primary Positions

2 or more classes per term
Work closely with undergraduates and curriculum
Colleges and teaching primary Universities
• Professor (assistant, associate, full) with tenure
• Lecturer

Teaching track at Research University
Many different types/titles w/ w/o tenure
Teaching Professor
Professor of the Practice, Clinical Professor, Lecturer w/SOE (CA)
Lecturer, Senior Lecturer
Government and Industry Labs

Rewards

• Research that impacts country or industry
• Industry: higher pay
• No teaching (if you consider that a plus)
• Your team includes other PhDs and experts
• Can be easier to do multidisciplinary research at government labs

Challenges

• Somewhat less job security (no tenure)
• Fund raising
• Less independence on choosing problems
The Application
Where to Apply

- Identify “stretch”, “eye-level”, and “safety” positions
- Check ads: CRA, CACM, IEEE Computer, departmental websites
- Apply if the call mentions all areas
- Certain research areas can match the hiring goals for more than one department (e.g., CS, ECE)
- Keep an open mind! You might be surprised what you end up liking the best
Your Application

• Cover Letter
• Curriculum Vitae (CV) - updated!!
• Research Statement (2-3 pages)
  • What are your key contributions? What is your vision for your future research?
• Teaching Statement (only academic, 1-2 pages)
  • What is your vision? What do you want to teach? How do you create an engaging classroom?
• Diversity statement?
• Letters of recommendation (3-5 people)
Identifying Letter Writers

• Letters are very important
• With your advisor, choose people who are
  • Familiar with your research
  • Respected in the research community (preferably, full professors or established research leaders)
  • Expected to write a meaningful and positive letter
• Consider (in addition to advisor)
  • Members of your research community with nearby research
  • Internship advisors
  • Members of your thesis committee
  • Other professors at your institution
• Give letter writers a copy of your application material
The Selection Process

- Some departments/labs ask for letters for all applicants, others only for the selected ones
- Some departments will let you know that there is a “no match,” but often you will not hear *anything*
- Few applicants will be invited for an interview
  - Telephone interviews are becoming more common (very common for teaching institutions and labs)
- Differences:
  - Four-year institutions may start earlier than research universities
  - Government lab hiring may be slow, but year round
Congrats – you’ve got an interview!

Your goal(s)?)
Their goal(s)?
Preparing for an Interview

• Do your homework – understand the organization!
  • Know the research areas and accomplishments of the people you will meet; prepare questions for them.
  • How might your research capabilities complement and integrate with the organization/department?
  • What role does the group/department play in the institutional structure?
  • Why are you interested?
  • Are your answers consistent with your statements?
Typical Interview

• 1-2 days
  • the talk, one-on-ones, meet Chair/Dean, student meetings, food)
• They will ask questions
• You will ask questions
• Demonstrate good social skills and how you fit with the department
The Job Talk

Preparing your Talk

• Provide enough background so people outside your area of research can follow
• Clearly state the problem and identify your specific contributions
• Show you understand any limitations of your approach and/or your results
• Thank collaborators
• Include future research ideas

Tips

• Get input from your advisor
• Give practice talks to a wider audience at your institution
• Consider any feedback you get
• Get the audience to ask questions, even weird ones, and to play difficult personalities
• Video your talk and (gulp!) watch it
• Practice, Practice, Practice
After the Interview

• Evaluate how it went – revise your materials if necessary
• Discuss with mentors/advisor/peers
• Follow up with anything you said you would do
• Send notes thanking people you particularly enjoyed talking to
• Okay to contact the chair/lead if you have another offer or to follow up
An offer!
Negotiating an Academic Offer

Resources, $$, …
- Salary
- Start-up package: student support, summer salary, travel funds, lab and student space, travel, etc
- Subsidized housing, moving expenses

Starting date and time till tenure
- A January start may buy you extra time on the tenure clock
- Tenure clock issues (clock credit, clock stoppage)
- Pre-tenure sabbatical?

Teaching
- Teaching load reduction
- 1st year teaching assignment

Other
- Help with obtaining an H1-B visa (if you’re non-US)
- Partner placement assistance
- Child-care facilities/cost
Negotiating an Industry Offer

Compensation

• Salary
• Signing bonus
• Equity (stock)
• moving expenses

Starting date, Pre-planned time off, etc..
Negotiating Tips

• One school of thought
  • If you never hear “no”, you’re not asking for enough

• Another
  • Don’t upset them; they will think badly of you

• Look up comps

• Evaluate the situation

• Ask for advice on phrasing things positively when asking
Parting Tips
2-Body Opportunities: When to tell?

In the cover letter
• Useful only if it involves two academic positions
• If it involves a different department, it allows the departments to explore options early

After invited for an interview
• They have already decided they are interested in you
• Make it clear what you will accept

During the visit
• Can discuss your needs and the options
• Can be distracting to the interview (consider only discussing with head/chair)

When an offer is made
• There may not be enough time
What is Often *Not* Said

• Academic research positions provide the most flexibility in terms of future options
  • Often difficult to move from a teaching position to an industrial position
  • Often difficult to move from a teaching or industrial position to a faculty position

• Most faculty get tenure
  • Most departments hire expecting/hoping to award the person tenure
  • Hiring and mentoring of junior faculty is expensive, in time and money
Acknowledgement

Modified slides from Julia Hirschberg, Susan Rodger, Dilma Da Silva, and Rita Wouhaybi.
GOOD LUCK!
Activity

Get with a partner and practice negotiating. One of you is the chair, one of you is the potential hire. The chair should say no to something:

Negotiation scenario: You have a higher salary offer from X University, ask the department chair to match it.

- You need special equipment, ask for it.
- Your partner also is graduating, see if they will interview your partner.